REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the following discussion, is respectfully requested.

Claims 1-9 are currently pending. No claim amendments are presented, thus, no new matter is added.

In the outstanding Office Action, Claims 1-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takano et al. (U.S. Patent No. 6,934,556, hereafter "Takano") in view of Das et al. ("Design and Performance of Downlink shared control channel for HSDPA", hereafter "Das").

Applicants thank the Examiner for the courtesy of a telephone interview extended to Applicants' representatives on December 17, 2007. During the interview, the differences between the claims and the applied art were discussed. In addition, the Examiner indicated that the rejection under 35 U.S.C. §103(a) would be withdrawn. The arguments presented during the interview are reiterated below.

With respect to the rejection of Claims 1-9 under 35 U.S.C. §103(a), Applicants respectfully traverse this ground of rejection. Claim 1 recites, *inter alia*,

> A radio communications control system for controlling transmission power of a shared control channel for transmitting control signals to a plurality of mobile stations; the system comprising:
> a transmission power controller configured to control the transmission power of the shared control channel, in accordance with transmission power of a dedicated channel accompanying the shared control channel, and communication quality of the shared control channel.

Figures 4 and 5 show a non-limiting embodiment that illustrates these features. In Figure 4, radio communication control system 10 is configured with base station (BS) connected to a plurality of mobile stations (UE#1-4). Figure 5 shows that radio communications control system 10 includes transmission power control unit 14, switch 12, and determination unit 13. Switch 12 transmits information of the transmission power of a

dedicated channel A-DPCH to the transmission power control unit 14.[1] Determination unit 13 determines a communication quality of the shared control channel HS-SCCH and transmits the determination result to the transmission power control unit 14.[2] Accordingly, transmission power control unit 14 is configured to control transmission power of the shared control channel HS-SCCH based on the transmission power of a dedicated channel A-DPCH and the communication quality of the shared control channel HS-SCCH.[3]

Takano describes a transmission power correcting method for a mobile communications system. Figure 1 of Takano shows a system including mobile stations 11, base station 12, and base station controller 13. Figure 2 of Takano shows that mobile station 11 includes channel quality measuring unit 31 which determines a power offset to be provided to the base station based on a measurement result of a channel quality of a downlink packet channel.[4] The mobile station also has a dedicated physical channel with the base station 12.[5] In another embodiment of Takano, the mobile station is allowed to direct the base station to raise or lower the transmission power based on the reception quality measured by the mobile station.[6]

As acknowledged in the Office Action, Takano fails to explicitly disclose a shared control channel as recited in Claim 1. The transmission power control described in Takano is not for a shared control channel, but rather it is for a downlink packet channel. Additionally, in Takano the communication quality measured at mobile station 11 is not for the shared control channel, but rather it is for the downlink packet channel. Therefore, the deficiency of Takano is not that it merely fails to explicitly disclose a shared control channel as indicated in the Office Action, but that it also fails to disclose or suggest ***a transmission power controller***

[1] See specification, at p. 11, lines 9-13.
[2] See specification, at p. 11, lines 14-17.
[3] See specification, at p. 11, line 29 to p. 12, line 5.
[4] See Takano, at col. 5, lines 3-9.
[5] Id., at col. 5, lines 18-20.
[6] Id., at col. 8, lines 55-67.

configured to control the transmission power of the shared control channel, in accordance with transmission power of a dedicated channel accompanying the shared control channel, ***and communication quality of the shared control channel***. In other words, without the shared control channel, Takano also fails to disclose or suggest the whole transmission power controller as defined by Claim 1.

The Office Action relies on Das to disclose a shared control channel. Das describes a High-Speed Downlink Packet Access (HSPDA) system including a shared control channel SCCH and describes how to improve the performance of the shared control channel SCCH through the use of different encoding schemes.[7]

However, Das fails to disclose or suggest ***a transmission power controller configured to control the transmission power of the shared control channel, in accordance with transmission power of a dedicated channel accompanying the shared control channel, and communication quality of the shared control channel***, as defined by Claim 1, and as missing from Takano as discussed above.

M.P.E.P. §2143.03 requires that to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested in the prior art. Therefore, with the applied art not having the claimed features noted above, it is respectfully submitted that Claim 1 patentably distinguishes over Takano and Das, either alone or in combination.

Notwithstanding the above discussion of the missing features of Takano and Das, Applicants respectfully submit that there is no rationale to combine Takano and Das to achieve the invention defined by Claim 1 as suggested by the Office Action.

The Office Action indicates that the rationale to combine Takano and Das would have been "to use the shared control channel to control power transmission." However, as discussed above, the transmission power that is being controlled in Takano is that of a

[7] See Das, at second and third paragraphs of the Introduction.

downlink packet channel. On the other hand, Claim 1 defines a ***transmission power controller configured to control the transmission power of the shared control channel***. Therefore, there would not only have to be a rationale for introducing a shared control channel into Takano, but there would also have to be a rationale for controlling the transmission power of the shared control channel in accordance with transmission power of a dedicated channel accompanying the shared control channel, and communication quality of the shared control channel.

Not only does Das fail to provide such a rationale but Das also teaches away from improving the performance of the shared control channel SCCH by adjusting the power of the SCCH.

The MPEP states that it is improper to combine references where the references teach away from their combination (see MPEP §2145 X.D.2). Recently, *KSR v. Teleflex*[8] reinforced the "teaching away" analysis in deciding obviousness. The Court stated that:

> In United States v. Adams, 383 U. S. 39, 40 (1966), a companion case to Graham, the Court considered the obviousness of a wet battery that varied from prior designs in two ways: It contained water, rather than the acids conventionally employed in storage batteries; and its electrodes were magnesium and cuprous chloride, rather than zinc and silver chloride. The Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result. 383 U. S., at 50-51. It nevertheless rejected the Government's claim that Adams's battery was obvious. The Court relied upon the corollary principle that when the prior art ***teaches away*** from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious. Id., at 51-52. [Emphasis added.]

Additionally, in considering objective evidence, the skepticism of experts is relevant to the issue of obviousness and must be considered in every case in which it is present (see MPEP §2141.01, Section III). In this case, Das provides drawbacks to attempting to adjust

[8] See KSR International Co. v. Teleflex Inc. et al. 2007 U.S. LEXIS 4745

the power of the SCCH to generate a SCCH frame rate, which leads to Das's objective to use encoding techniques to improve the SCCH performance.[9] In particular, Das describes that:

> ...it turns out that the power required to guarantee a certain SCCH frame error rate (FER), say 1%, is quite large. Since the SCCH is sharing power with the HS-DSCH and other dedicated channels, this incurs a huge loss in the system capacity.[10]

Therefore, not only does Das teach away from adjusting the power of the shared control channel, but Das as an expert (as the first named author of an IEEE publication) expresses skepticism that power adjustments could be made without a "huge loss in system capacity."

Thus, as discussed above, Takano and Das fail to disclose or suggest all the features of Claim 1, there is no rationale to combine Takano and Das to achieve the invention defined by Claim 1 because Das teaches away from such a combination, and Das as an expert expresses skepticism about attempting to adjust the power of a shared control channel.

Independent Claim 9 recites features similar to Claim 1. Thus, it is respectfully submitted that Claims 1 and 9 (and all associated dependent claims) patentably distinguish over Takano and Das, either alone or in combination.

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[9] See Das, at the third paragraph of the Introduction.
[10] Id.

Consequently, in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The present application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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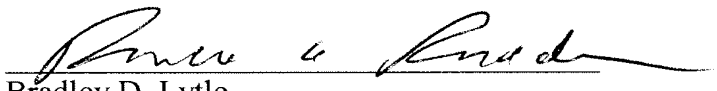

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